

## **CLAIMS**

1. A method for the stabilization of the color of cochineal dye in an aqueous solution, comprising providing in a cochineal colored aqueous solution an effective stabilizing amount of a transition metal capable of slowing down the photo-induced fading of said cochineal dye.
2. The method according to claim 1, wherein said transition metal is a metal ion selected from the group consisting of copper, iron, zinc and combinations thereof.
3. The method according to claim 2, wherein said copper is Cu (II), said iron is Fe (III) and said zinc is Zn (II).
4. The method according to claim 1, wherein said aqueous solution contains a water soluble dietary fiber.
5. The method according to claim 4, wherein said dietary fiber is based on a carbohydrate polymer selected from polydextrose, inulin, or pyroconverted starch.
6. The method according to claim 5, wherein said dietary fiber comprises polydextrose.
7. The method according to claim 6, wherein said solution is a beverage and polydextrose is included in said beverage at a level of 1 to 20 % calculated as the weight of the polydextrose on the volume of the aqueous beverage.

8. The method according to claim 7, wherein said polydextrose is included at a level of 3 to 10 % calculated as the weight of the polydextrose on the volume of the aqueous beverage.
9. The method according to claim 1, wherein said solution has an acidic pH.
10. The method according to claim 9, wherein said solution is a beverage containing ascorbic acid and having a pH of 5 or less.
11. The method according to claim 2, wherein said metal ions are added to an aqueous vehicle forming the beverage.
12. The method according to claim 2, wherein said metal ions are included in an aqueous vehicle used for producing the beverage.
13. The method according to claim 7, wherein said metal ions are included in said beverage by adding salt(s) of said metal(s) directly to an aqueous acidified solution containing said cochineal.
14. The method according to claim 13, wherein said metal ions are included in said beverage in an amount of 0.01 to 15 ppm calculated as the weight of the metal ion on the volume of the aqueous beverage.
15. The method according to claim 14, wherein said metal ion is copper Cu (II) and it is included in said beverage in an amount of 0.02 to 5 ppm.
16. The method according to claim 15, wherein said copper Cu (II) is included in said beverage in an amount of 0.03 to 0.1 ppm.

17. The method according to claim 1, wherein said metal(s) is/are included in said solution as metal(s) dissolved or solvated by organic or inorganic acid(s).
18. The method according to claim 1, wherein said solution contains a soluble dietary fiber based on a carbohydrate polymer and said transition metal is added at a level of 0.1 to 150  $\mu\text{g}$  per g of carbohydrate polymer.
19. The method according to claim 18, wherein said transition metal comprises copper Cu (II), which is added at a level of 0.2 to 2  $\mu\text{g}$  per g of polymer.
20. The method according to claim 18, wherein said transition metal comprises iron Fe (III), which is added at a level of 0.3 to 2  $\mu\text{g}$  per g of carbohydrate polymer.
21. The method according to claim 4, wherein said metal is added as part of the matrix of said dietary fiber.
22. The method according to claim 21, wherein said metal is included as a cation or a solvated dissolved metal in said carbohydrate polymer during the synthesis of said polymer or after the initial synthesis of said polymer.
23. The method according to claim 1 wherein said solution is an acidified beverage containing 1 to 200 ppm cochineal calculated by weight of cochineal extract on the volume of the beverage, 1 to 20% polydextrose calculated by weight on the volume of the beverage and 0.01 to 1% of ascorbic acid calculated on the volume of the beverage, and wherein said beverage is provided with about 0.2 to 2  $\mu\text{g/g}$  Cu (II) calculated by weight on the weight of said polydextrose.
24. A solution colored with cochineal and comprising an aqueous solution containing cochineal as a dye and a transition metal in an effective stabilizing

amount capable of significantly slowing down the photo-induced fading of said dye in said solution.

25. The solution according to claim 24, wherein said solution is an acidified cochineal colored beverage having an acidic pH between pH 2.5 and 5.
26. The solution according to claim 25, wherein said transition metal is a metal ion selected from the group consisting of copper Cu (II), iron Fe (III), zinc Zn (II) and combinations thereof.
27. The solution according to claim 25, wherein said aqueous solution contains a water-soluble dietary fiber.
28. The solution according to claim 27, wherein said dietary fiber is based on a carbohydrate polymer selected from polydextrose, inulin and pyroconverted starch.
29. The solution according to claim 28, wherein said dietary fiber comprises polydextrose.
30. The solution according to claim 29, wherein said polydextrose is included in said aqueous beverage at a level of 1 to 20% calculated as the weight of the polydextrose on the volume of the beverage.
31. The solution according to claim 26, wherein said metal ion(s) is/are included in said beverage in an amount of 0.01 to 15 ppm calculated as the weight of the metal ion(s) on the volume of the aqueous beverage.

32. The solution according to claim 24, wherein said solution comprises a beverage containing a soluble dietary fiber based on polydextrose and said transition metal is included at a level of 0.1 to 150  $\mu\text{g}$  per g of polydextrose.
33. The solution according to claim 32 wherein said beverage is an acidified beverage containing 1 to 200 ppm cochineal, 1 to 20% polydextrose, 0.01 to 1 % ascorbic acid and wherein said beverage contains as an effective amount 0.2 to 2  $\mu\text{g/g}$  Cu (II) calculated by weight on the weight of said polydextrose.
34. An anti-fading composition for a cochineal solution comprising water-soluble dietary fiber useful for fiber beverages and an effective stabilizing amount of a transition metal capable of significantly slowing down the photo-induced fading of cochineal dye in an aqueous solution.
35. The anti-fading composition of claim 34, wherein said dietary fiber comprises polydextrose and said transition metal is a cation selected from Cu (II), Fe (III) and Zn (II) provided in an amount of 0.1 to 150  $\mu\text{g/g}$  calculated by weight on the weight of the polydextrose.
36. The anti-fading composition of claim 35, wherein said transition metal has been included in said polydextrose during the synthesis and/or finishing thereof.